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► Additional material is published online only. To view, please visit the journal online (http://dx.doi.org/10.1136/ tobaccocontrol-2020-055855).

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INTRODUCTION

Over the last decade, a wide variety of e-cigarette advertisements have claimed superior healthfulness compared with cigarettes. Recently, we recognised a novel form of health reassurance advertising, promotion of e-cigarettes via COVID-19 pandemic themes. This led us to systematically explore COVID-19 marketing of e-cigarette brands and vape stores on their websites and Instagram accounts. We have collected over 300 COVID-19 themed e-cigarette promotional images and posted them to our online repository (tobacco.stanford. edu/COVID-19). These images represent 21 e-cigarette brands and 41 online vaping stores that vend multiple brands. The COVID-19 messaging in these advertisements took several forms.

BUY OUR VAPING PRODUCT, RECEIVE A FREE GIFT OF ESSENTIAL SUPPLIES

As essential supplies became scarce in stores, e-cigarette brands offered these much-needed supplies, including masks, toilet paper rolls and hand sanitisers, as gifts contingent on the purchase of vaping products (figure 1). Some brands (eg, Podsalt, BLVK and One Drop Vape) offered free hand sanitiser with the purchase of any of its products. Podsalt described its sanitiser as 'WHO recommended' and claimed that it 'kills 99.9% of bacteria'. VaporDNA offered two strengths of CBD-enriched hand sanitisers (50 mg and 200 mg), while Vape Craft offered the option of sanitiser with or without CBD. 45 The British nicotine liquid manufacturer MyVapery/ Xyfil claimed that it has transformed 80% of its production capacity to produce 50 000 alcoholbased hand sanitisers per day.6 The brand created a website (https://www.handsanitising.com/) and Instagram page (@handsanitising) to market its brand of hand sanitiser.7

Most sanitisers were offered in the same bottles as the companies' flavoured nicotine e-liquids. This raises concern that they might accidentally be used in a vaping device. Aerosolising such alcohol-based liquid creates a plume that is likely to be injurious to the lung. Vaping an alcohol containing product may also be a fire hazard.

Several e-cigarette brands (eg, Smok and Apollo Vapes) and vendors (eg, Vapeempire, ave40official and Vintage Vapor) offered face masks to its patrons. Smok offered 10 000 free medical disposable masks on its website and Instagram. The brand also posted a contest that allowed its followers to pick six essential items from an assortment of articles that included a variety of Smok e-cigarettes, masks, toilet papers and sanitiser. Vaporesso and

Innokin mentioned donation of free masks on their website, while a Suorin Instagram post referred to free distribution of masks. Vapempire had a series of illustrations that demonstrated how to wear a mask properly. Vintage Vapor, a Texasbased tobacco retailer, promoted sale of KN95 masks through its online store. British America Tobacco's Glo and BLVK Unicorn created branded face masks—tantamount to walking billboards promoting their product (figure 2, online supplementary figure 1). SCSVape offered a roll of toilet paper with every order over \$10.12

A few e-cigarette vendors (eg, Vintage Vapor, MigVapor and Vape Sourcing) have opportunistically created a side business selling protective gear, sometimes at profiteering prices. For example, Vintage Vapor sells 60 cc (2 ounce) bottles of hand sanitiser for \$6.95 and masks at \$5 each (figure 1). The price of \$3.48/ounce is nine times as much as Purell via Target.com at \$.37/ounce (\$2.99 for 8 ounces). Procedural masks typically sell for a fraction of a dollar.

OUR PRODUCTS WILL NOT GIVE YOU COVID-19

E-cigarette brands concerned that customers will avoid their products due to fear that they may be contaminated, conveyed reassuring messages about the manufacturing and handling of the products. Puff Bar on Instagram posted a photo of its Chinese factory with all of its workers wearing head-to-toe protective gear¹³ (online supplementary figure 2). RELX stated that its workshops are 'disinfected daily' and 'follow stringent hygiene standards' (online supplementary figure 3).

COVID-19 THEMED DISCOUNTS

To entice consumers, brands and vendors offered discounts themed on pandemic protection measures (figure 3). Loon e-cigarettes offered 20% off the entire purchase with the promotional code 'Staysafe'. 15 An email from Loon said the promotion was to ensure that tobacco consumers are 'still taken care of' and to 'make sure you can still get your high-quality nicotine products without having to even leave your home'. The email ended with a plea to support tobacco shops: 'They are always here for us, so let's be there for them. The only way to beat this thing is together'. E-cigarette retailer, BuySaltPod, offered a 30% discount with the promo code 'StayHome' and urged consumers to stay home and get their 'fix' by ordering online. 15 Greyhaze, an e-cigarette store, offered 25% discount to 'frontline medical staff'. 16 BLVK Unicorn offered



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To cite: Ramamurthi D, Chau C, Jackler RK. Tob Control Epub ahead of print: [please include Day Month Year]. doi:10.1136/ tobaccocontrol-2020-055855





Figure 1 Examples of essential pandemic supplies (eg, hand sanitisers, masks and toilet paper) offered by e-cigarette companies as a bonus to spur sales. In the case of Vintage Vapor, they appear to have added these essential supplies to their product line offered for sale. Note that some of the hand sanitisers come in the company's e-liquid bottles, raising concern over potential accidental use in an e-cigarette device risking injurious inhalation.

30% to all 'doctors, nurses and medical staff' for 'making sacrifices every day to maintain normalcy'. 17

STAY HOME AND VAPE

With a number of states deeming tobacco stores/vape stores as non-essential businesses, retailers offered 'contactless delivery' and 'curbside' pickup to 'support' their customers during quarantine. 18 Westhartfordartisanvapor told users 'Don't curb





Figure 2 British American Tobacco's (BAT) heated tobacco product Glo-themed facemasks carry the message #todayiwill followed by 'stay home'. The Instagram hashtag #todayiwill has over 15 000 posts, many of which are Glo advertisements. In the same Instagram hashtag BAT messages both today I will 'stay home' and 'go out' with the latter showing a Glo store (https://www.instagram.com/p/CAzzRGiJ7f9/).



Figure 3 Safety messaging by e-cigarette companies such as Wild Vape's: 'Stay Home — Shop Online. Let Us Do the Rest'. 'The rest' presumably means let us supply you with our vaping products in your own home. Loon uses a 20% discount promo code 'Staysafe' with the implication that using their products are an essential part of remaining safe. PHIX gives a series of safety recommendations including: 'Avoid Sharing Your Device'.

your enthusiasm. You can now call for curbside delivery at our stores'. ¹⁹ Twinsmokeshop encouraged people to call ahead and pick up their delivery safely. Stores were also quick to encourage users to order through their online stores. Vintage Vapor asked people to 'Avoid the threat and stay home' by ordering online. ²⁰ IQOS, a leading heated tobacco product offered by Philip Morris International, also promoted free contactless delivery: 'To aide (sic) in minimizing points of contact and support social distancing, we are temporarily waiving ID validation at the time of delivery for online orders'. ¹⁸ Waiving age verification may encourage underage use.

Marketers' intentions with these stay-at-home advertisements were not merely to advocate for adherence to social distancing regulations but to promote continued purchasing of their vapour products (figure 4). Some of this genre are more transparent of their intent such as VelvetVape, which advises 'Stay home, stay safe, and vape on', while Phix suggests 'Keep Calm and Phix at home'^{21 22} (figure 3). Other brands equated their e-cigarette products with other essential items for sale. For example, BH Vape advised its customers to 'stock up on their vaping essentials'.²³ An enterprising British vape store named Thrill Seeker Vape created a logo adorned with coronavirus spikes on a website listing a URL combining COVID-19 with vape (https://www.covidvapesupplies.co.uk/)²⁴ (online supplementary figure 4).

HEALTH REASSURANCE THEMES

Some COVID-19 e-cigarette advertisements profess the healthfulness of the company's products and instruct consumers on their use during COVID-19² (figure 5). A series of Instagram posts from PodVapes made multiple claims regarding the supposed health benefits of e-cigarette use²⁵ (online supplementary figure 5). The e-cigarette industry is clearly concerned about reports that vaping may make user's more vulnerable to serious



Figure 4 A number of e-cigarette advertisements came with COVID-19 quarantine themes. These four advertisements make the companies' intentions clear, which is not merely to stay at home but to vape as a means of easing confinement. The relaxed poses conveys a marketing message that e-cigarettes will alleviate the stress of sheltering at home.

disease with COVID-19. ²⁶ In an Instagram post, BLVK Unicorn Vape maintains, 'Myth: Vaping may lead to increased risks with COVID-19'. ²⁷ A Vapetasia post under the heading, 'COVID-19 and Vaping What You Should Know' states that 'There has been a lot of talk about vaping and COVID-19, so much that it seems that the misinformation is spreading faster than the virus itself'. ²⁸

VAPING WILL HELP YOU TO COPE WITH THE COVID-19 PANDEMIC

Nasty Juice recommended its products for their purported stress and anxiety relieving effects: 'Don't be discouraged but chill, work from home with the calming effect of sweet caramel tobacco and bronze blend flowing from you'.²⁹ The accompanying image showed a little girl, teddy bear in hand, interrupting her father who is trying to work at home (online supplementary figure 6).

DISCUSSION

It is more than a bit ironic that e-cigarette companies have chosen to exploit a global pandemic for marketing purposes when their products themselves have been described as causing an epidemic of nicotine addiction among youth. Companies are also using their response to COVID-19 to burnish their public relations. For example, the e-cigarette industry advocacy group Vapor Technology Association (https://vaportechnology.org/) is making a special effort to collect examples of measures taken by e-cigarette manufacturers in response to COVID-19, no doubt to lobby based on their support for public health³⁰ (online supplementary figure 7). In another example, Philip Morris International donated 50 ventilators to Greek hospitals. An article on this COVID-19 donation quoted a Greek researcher Constantine Vardavas of the University of Crete as saying: 'it is a funny position to be giving ventilators but selling a product that leads to worse outcomes'. 31 An article in the Los Angeles Times reported that Altria donated \$1 million in support of local Richmond,



Figure 5 COVID-19 health-themed e-cigarette promotions including offering gratitude discounts for healthcare workers (Greyhaze, Kilo). Others offer sensible precautions relevant to e-cigarette users during a pandemic: 'Clean and Disinfect' and 'Sharing Is not Caring'. The VapeEmpire post displays a 'stay healthy' message in the shape of a surgical face mask. It also appeals to patriotism 'Do your part! Let's protect our country'.

Virginia, COVID-19 relief efforts professing that: 'Caring for each other and doing what's right is core to our company'. 32

There is concern that e-cigarettes may increase the risk of acquiring COVID-19. Using e-cigarettes involves repetitive hand-to-mouth motion of a type highly discouraged during the COVID-19 epidemic. Among teens, vaping is typically a group social activity that often involves sharing of devices. Use of e-cigarettes theoretically carries a risk of transmitting COVID-19 to others through its exhaled plume that contains aerosolised e-liquid contaminated by the user's respiratory mucous. Vaping is known to cause inflammation in the lung and also suppresses its immune defenses, factors that may prolong and intensify lung infection.³³ Whether inhalation of e-cigarette aerosols predisposes to COVID-19, or intensifies the disease, has yet to be studied in detail.

The US Food and Drug Administration's (FDA) regulations prohibit e-cigarette marketers from advertising their products as beneficial to health. By linking e-cigarettes to the COVID-19 pandemic, marketers are implicitly, and at times explicitly, implying a health benefit of their products. Claims of reduced risk are prohibited by the FDA. In September 2019, the FDA issued a warning letter to popular e-cigarette manufacturer JUUL for marketing its products as a modified tobacco risk product.³⁴ To remain on the market in the USA, all e-cigarette products must submit a Premarket Tobacco Product Application to FDA

Ad watch

by 9 September 2020.³⁵ In its evaluation process, the agency should take into account brands that have a history of pursuing aggressive and deceptive marketing techniques.

Contributors RKJ conceived the paper. RKJ and DR wrote the manuscript. All three authors sourced images for the paper and edited the manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available in a public, open access repository.

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